

### **Amendments to the Claims:**

Please amend claims 1-14 and 16 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) Transmitter ( ~~$T_{x_1}, T_{x_2}$~~ ) for simultaneously transmitting at least ~~[[a]]~~ first ( ~~$s'_1$~~ ) and ~~[[a]]~~ second ( ~~$s'_2$~~ ) ~~signal~~ signals, the first signal ( ~~$s'_1$~~ ) being modulated according to a first modulation constellation, the second signal ( ~~$s'_2$~~ ) being modulated according to a second modulation constellation, wherein the transmitter is arranged to pre-code at least the first signal ( ~~$s'_1$~~ ) through a modification of the first modulation constellation so as to prevent a correlation between the at least first ( ~~$s'_1$~~ ) and second ( ~~$s'_2$~~ ) simultaneously transmitted signals.
2. (currently amended) Transmitter ( ~~$T_{x_1}, T_{x_2}$~~ ) according to claim 1, wherein the pre-coding of at least the first signal ( ~~$s'_1$~~ ) comprises a rotation of the first modulation constellation through a first angle.
3. (currently amended) Transmitter ( ~~$T_{x_1}, T_{x_2}$~~ ) according to claim 1, wherein the pre-coding of at least the first signal ( ~~$s'_1$~~ ) comprises a change of the order of the first modulation constellation.
4. (currently amended) Transmitter ( ~~$T_{x_1}, T_{x_2}$~~ ) according to claim 3, wherein the pre-coding further comprises a change of the number of simultaneously transmitted signals ( ~~$s'_1, s'_2$~~ ).
5. (currently amended) Transmitter ( ~~$T_{x_1}, T_{x_2}$~~ ) according to claim 1, wherein the transmitter is arranged to pre-code at least the first ( ~~$s'_1$~~ ) signal after receipt of a first signal from a receiver ( ~~$R_{x_1}, R_{x_2}$~~ ) of the at least first ( ~~$s'_1$~~ ) and second ( ~~$s'_2$~~ ) simultaneously

transmitted signals.

6. (currently amended) Transmitter ( ~~$T_{x1}$ ,  $T_{x2}$~~ ) according to claim 1, wherein the transmitter is arranged to transmit a second signal to a receiver ( ~~$R_{x1}$ ,  $R_{x2}$~~ ) of the at least first ( ~~$s'_1$~~ ) and second signals ( ~~$s'_2$~~ ) in order to notify the receiver about the pre-coding of at least the first ( ~~$s'_1$~~ ) signal.

7. (currently amended) Transmitter ( ~~$T_{x1}$ ,  $T_{x2}$~~ ) according to claim 1, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

8. (currently amended) Receiver ( ~~$R_{x1}$ ,  $R_{x2}$~~ ) for simultaneously receiving at least  $[[a]]$  first ( ~~$s'_1$~~ ) and  $[[a]]$  second ( ~~$s'_2$~~ ) ~~signal~~ signals from a transmitter ( ~~$T_{x1}$ ,  $T_{x2}$~~ ), the first received signal ( ~~$s'_1$~~ ) being modulated according to a first modulation constellation, the second received signal ( ~~$s'_2$~~ ) being modulated according to a second modulation constellation, in which at least the first received signal ( ~~$s'_1$~~ ) is pre-coded through a modification of the first modulation constellation so ~~as~~ as to prevent a correlation between the at least first ( ~~$s'_1$~~ ) and second ( ~~$s'_2$~~ ) simultaneously received signals.

9. (currently amended) Receiver ( ~~$R_{x1}$ ,  $R_{x2}$~~ ) according to claim 8, wherein the pre-coding of the first ( ~~$s'_1$~~ ) received signal comprises a rotation of the first modulation constellation.

10. (currently amended) Receiver ( ~~$R_{x1}$ ,  $R_{x2}$~~ ) according to claim 8, wherein the pre-coding of the first ( ~~$s'_1$~~ ) received signal comprises a change of the order of the first modulation constellation.

11. (currently amended) Receiver ( ~~$R_{x1}$ ,  $R_{x2}$~~ ) according to claim 8, wherein the pre-coding further comprises a change of the number of simultaneously received signals ( ~~$s'_1$ ,  $s'_2$~~ ).

12. (currently amended) Receiver (~~R<sub>x1</sub>~~, ~~R<sub>x2</sub>~~) according to claim 8, wherein the receiver is arranged to transmit a first signal to the transmitter in a response to which the transmitter is arranged to pre-code at least the first (~~s'<sub>1</sub>~~) signal.

13. (currently amended) Receiver (~~R<sub>x1</sub>~~, ~~R<sub>x2</sub>~~) according to claim 8, wherein the receiver is arranged to receive a second signal from the transmitter (~~T<sub>x1</sub>~~, ~~T<sub>x2</sub>~~) in a response to the transmitter pre-coding at least the first (~~s'<sub>1</sub>~~) signal.

14. (currently amended) Receiver (~~R<sub>x1</sub>~~, ~~R<sub>x2</sub>~~) according to claim 8, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

15. (original) Transceiver comprising a transmitter according to claim 1.

16. (currently amended) Transceiver according to claim 15, further comprising a receiver (~~R<sub>x1</sub>~~, ~~R<sub>x2</sub>~~) for simultaneously receiving at least ~~[[a]]~~ first (~~s'<sub>1</sub>~~) and ~~[[a]]~~ second (~~s'<sub>2</sub>~~) ~~signal signals~~ from a transmitter (~~T<sub>x1</sub>~~, ~~T<sub>x2</sub>~~), the first received signal (~~s'<sub>1</sub>~~) being modulated according to a first modulation constellation, the second received signal (~~s'<sub>2</sub>~~) being modulated according to a second modulation constellation, in which at least the first received signal (~~s'<sub>1</sub>~~) is pre-coded through a modification of the first modulation constellation so ~~a~~ as to prevent a correlation between the at least first (~~s'<sub>1</sub>~~) and second (~~s'<sub>2</sub>~~) simultaneously received signals.

17. (original) Wireless device comprising a transmitter according to claim 1.

18. (original) Telecommunication system comprising a transmitter according to claim 1.